SEQUENCE LISTING

<110> Liu, et al.,

<120> Screens and Assays for Agents Useful in Controlling Parasitic Nematodes

<130> 2002630-0012

<140> 10/051,644
<141> 2002-01-18

<160> 33

<170> PatentIn version 3.2

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20 25 30

Arg Lys Met Phe Tyr Asp Ala His Asn Asp Ala Arg Arg Ser Met Ala
35 40 45

Lys Gly Leu Glu Pro Asn Lys Cys Gly Leu Leu Ser Gly Gly Lys Asn
50 55 60

Val Tyr Glu Leu Asn Trp Asp Cys Glu Met Glu Ala Lys Ala Gln Glu
65 70 75 80

Trp Ala Asp Gly Cys Pro Ser Ser Phe Gln Thr Phe Asp Pro Thr Trp
85 90 95

Gly Gln Asn Tyr Ala Thr Tyr Met Gly Ser Ile Ala Asp Pro Leu Pro
100 105 110

Tyr Ala Ser Met Ala Val Asn Gly Trp Trp Ser Glu Ile Arg Thr Val
115 120 125

Gly Leu Thr Asp Pro Asp Asn Lys Tyr Thr Asn Ser Ala Met Phe Arg
130 135 140

Phe Ala Asn Met Ala Asn Gly Lys Ala Ser Ala Phe Gly Cys Ala Tyr

145 150 155 160

Ala Leu Cys Ala Gly Lys Leu Ser Ile Asn Cys Ile Tyr Asn Lys Ile
165 170 175

Gly Tyr Met Thr Asn Ala Ile Ile Tyr Glu Lys Gly Asp Ala Cys Thr
180 185 190

Ser Asp Ala Glu Cys Thr Thr Tyr Ser Asp Ser Gln Cys Lys Asn Gly
195 200 205

Leu Cys Tyr Lys Ala Pro Gln Ala Pro Val Val Glu Thr Phe Thr Met
210 215 220

Cys Pro Ser Val Thr Asp Gln Ser Asp Gln Ala Arg Gln Asn Phe Leu
225 230 235 240

Asp Thr His Asn Lys Leu Arg Thr Ser Leu Ala Lys Gly Leu Glu Ala
245 250 255

Asp Gly Ile Ala Ala Gly Ala Phe Ala Pro Met Ala Lys Gln Met Pro
260 265 270

Lys Leu Val Lys Tyr Ser Cys Thr Val Glu Ala Asn Ala Arg Thr Trp
275 280 285

Ala Lys Gly Cys Leu Tyr Gln His Ser Thr Ser Ala Gln Arg Pro Gly
290 295 300

Leu Gly Glu Asn Leu Tyr Met Ile Ser Ile Asn Asn Met Pro Lys Ile
305 310 315 320

Gln Thr Ala Glu Asp Ser Ser Lys Ala Trp Trp Ser Glu Leu Lys Asp
325 330 335

Phe Gly Val Gly Ser Asp Asn Ile Leu Thr Gln Ala Val Phe Asp Arg
340 345 350

Gly Val Gly His Tyr Thr Gln Met Ala Trp Glu Gly Thr Thr Glu Ile
355 360 365

Gly Cys Phe Val Glu Asn Cys Pro Thr Phe Thr Tyr Ser Val Cys Gln
370 375 380

Tyr Gly Pro Ala Gly Asn Tyr Met Asn Gln Leu Ile Tyr Thr Lys Gly
385 390 395 400

Ser Pro Cys Thr Ala Asp Ala Asp Cys Pro Gly Thr Gln Thr Cys Ser
405 410 415

Val Ala Glu Ala Leu Cys Val Ile Pro
420 425

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<212> DNA
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aatgatgcaa gacgaagcat ggctaaaggg cttgagccaa acaagtgcgg actcttatct 180

ggtggaaaga atgtttatga attgaattgg gattgcgaga tggaagcaaa agctcaggaa 240

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gcgacgtaca tgggatcgat tgctgatccg cttccatacg cttccatggc tgttaatggg 360

tggtggtcgg aaattagaac cgtaggactt acggatcctg ataacaagta cactaacagt 420

gcaatgttcc gatttgctaa tatggcaaat ggtaaagctt cagcttttgg atgtgcatac 480

gcgttgtgcg caggaaaact atccatcaat tgcatttaca acaagatagg atacatgacc 540

aatgctatca tttatgaaaa aggagatgcc tgtaccagtg acgctgaatg caccacctac 600

tcagactcac aatgcaaaaa cggtctttgc tataaggcac ctcaagctcc agtcgttgag 660

actttcacaa tgtgcccttc ggtcacggac cagtcggatc aggcgcgtca aaacttcttg 720

gacacccata acaaattgcg tacaagcctt gccaagggac ttgaagctga tggaattgcc 780

gctggagcat ttgcaccaat ggccaagcaa atgccaaaac tggtaaaata cagctgcaca 840

gttgaagcaa acgccagaac atgggcaaaa ggatgccttt accagcattc aacaagcgca 900

cagagaccag gactcggtga aaatctttat atgatcagca ttaacaacat gcctaaaatt 960

caaaccgcgg aggactcctc aaaggcttgg tggtccgagt tgaaagactt cggagtcggt 1020

tctgacaaca ttctgaccca agcagttttt gatcgtggcg ttggacatta cacacaaatg 1080

gcatgggaag gaactactga aattggatgt tttgtggaga attgtccaac attcacttat 1140

tccgtatgcc aatatggtcc agcgggaaac tacatgaacc aactaatcta taccaagggc 1200

tcaccatgca cagctgacgc cgattgccca ggaacccaga catgcagtgt cgctgaagca 1260

ttatgtgtta tcccttagta aattttctat gcaactcttt gaaagtcata ataaatatgc 1320

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<400> 3

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Ala Gln Thr Val Asn Ile Glu Gly Ser Gly Gly Asn Asp Glu Leu Leu
            20                  25                  30

Glu Gln Asn Val Trp Asn Asp Val Asp Asp Lys Val Val Glu Ala Leu
        35                  40                  45

Gly Gly Leu Asp Asp Glu Leu Leu Thr Glu His Val Cys Asn Lys Ser
    50                  55                  60

Thr Ile Thr Gln Leu Gln Gln Glu Ile Ile Leu Thr Thr His Asn Glu
65                  70                  75                  80

Leu Arg Arg Ser Leu Ala Phe Gly Lys Gln Arg Asn Lys Arg Gly Leu
                85                  90                  95

Met Asn Gly Ala Arg Asn Met Tyr Lys Leu Asp Trp Asp Cys Glu Leu
            100                 105                 110

Ala Ser Leu Ala Ala Asn Trp Ser Thr Ser Cys Pro Gln His Phe Met
        115                 120                 125

Pro Gln Ser Val Leu Gly Ser Asn Ala Gln Leu Phe Lys Arg Phe Tyr
    130                 135                 140

Phe Tyr Phe Asp Gly His Asp Ser Thr Val His Met Arg Asn Ala Met
145                 150                 155                 160

Lys Tyr Trp Trp Gln Gln Gly Glu Glu Lys Gly Asn Glu Asp Gln Lys
                165                 170                 175

Asn Arg Phe Tyr Ala Arg Arg Asn Tyr Phe Gly Trp Ala Asn Met Ala
            180                 185                 190

Lys Gly Lys Thr Tyr Arg Val Gly Cys Ser Tyr Ile Met Cys Gly Asp
        195                 200                 205
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Gly Glu Ser Ala Leu Phe Thr Cys Leu Tyr Asn Glu Lys Ala Gln Cys
    210                 215                 220

Glu Lys Glu Met Ile Tyr Glu Asn Gly Lys Pro Cys Cys Glu Asp Lys
225                 230                 235                 240

Asp Cys Phe Thr Tyr Pro Gly Ser Lys Cys Leu Val Pro Glu Gly Leu
                245                 250                 255

Cys Gln Ala Pro Ser Met Val Lys Asp Asp Gly Gly Ser Phe Gln Cys
            260                 265                 270

Asp Asn Ser Leu Val Ser Asp Val Thr Arg Asn Phe Thr Leu Glu Gln
        275                 280                 285

His Asn Phe Tyr Arg Ser Arg Leu Ala Lys Gly Phe Glu Trp Asn Gly
    290                 295                 300

Glu Thr Asn Thr Ser Gln Pro Lys Ala Ser Gln Met Ile Lys Met Glu
305                 310                 315                 320

Tyr Asp Cys Met Leu Glu Arg Phe Ala Gln Asn Trp Ala Asn Asn Cys
                325                 330                 335

Val Phe Ala His Ser Ala His Tyr Glu Arg Pro Asn Gln Gly Gln Asn
            340                 345                 350

Leu Tyr Met Ser Ser Phe Ser Asn Pro Asp Pro Arg Ser Leu Ile His
        355                 360                 365

Thr Ala Val Glu Lys Trp Trp Gln Glu Leu Glu Glu Phe Gly Thr Pro
    370                 375                 380

Ile Asp Asn Val Leu Thr Pro Glu Leu Trp Asp Leu Lys Gly Lys Ala
385                 390                 395                 400

Ile Gly His Tyr Thr Gln Met Ala Trp Asp Arg Thr Tyr Arg Leu Gly
                405                 410                 415

Cys Gly Ile Ala Asn Cys Pro Lys Met Ser Tyr Val Val Cys His Tyr
            420                 425                 430

Gly Pro Ala Gly Asn Arg Lys Asn Asn Lys Ile Tyr Glu Ile Gly Asp
        435                 440                 445

Pro Cys Glu Val Asp Asp Asp Cys Pro Ile Gly Thr Asp Cys Glu Lys
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Thr Thr Ser Leu Cys Val Ile Ser Lys
465 470

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gacgacaagg ttgtagaagc acttggtggt cttgatgatg aactgctaac cgaacatgtg 180

tgtaacaaat caacgatcac tcagctacag caggagatca tcttgacaac ccacaatgaa 240

ttacgaagat cattggcttt cggaaagcaa agaaacaaga gaggtctcat gaacggtgcg 300

agaaatatgt ataaactgga ttgggattgt gaactggcat cacttgcagc caattggtca 360

acctcctgcc ctcagcactt tatgccgcaa tcggtacttg gctccaacgc tcagcttttt 420

aagcgtttct atttttattt tgatgggcac gactctactg tacatatgcg aaacgcgatg 480

aagtattggt ggcagcaagg tgaagaaaaa ggcaatgagg atcagaaaaa tagattctat 540

gccagacgaa attattttgg atgggcaaac atggcaaaag gaaaaacata tcgagttgga 600

tgctcgtata ttatgtgcgg cgacggtgaa tctgcacttt tcacttgtct ttataacgaa 660

aaagcccaat gcgaaaaaga aatgatttac gaaaatggaa aaccctgctg tgaggataaa 720

gactgtttca catatccagg atcaaaatgt ttagtacctg aaggattatg tcaagcacct 780

tctatggtaa aggatgatgg aggaagtttc caatgtgata actcccttgt gtcagatgtc 840

acccgcaatt tcactttgga gcaacacaat ttttatagat ctcgtcttgc aaaaggtttt 900

gaatggaatg gagaaacaaa cacttcccag ccaaaggcta gtcaaatgat caaaatggag 960

tatgactgca tgttggaacg gtttgcacaa aactgggcaa ataattgcgt ttttgcacac 1020

tcggcacatt acgaaagacc gaatcagggt cagaatctct acatgagttc tttctcaaac 1080

cctgatccta gaagccttat acatacggcc gtcgagaagt ggtggcagga attggaggag 1140

ttcggtactc caattgataa cgttctgaca cccgaattgt gggatttgaa agggaaagcg 1200

ataggacatt acactcagat ggcctgggat cgtacttacc gtcttggttg tggaatcgca 1260

aactgtccga agatgtcgta cgtggtttgt cactatgggc cagcaggcaa cagaaagaac 1320

aataaaatct atgaaatcgg ggatccttgc gaagtcgatg atgattgccc gattggaaca 1380

gattgtgaaa agacaacttc tttatgtgtg atctcaaaat aa 1422

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<220>
<223> Primer for Caenorhabditis elegans

<400> 5
gccaaacaag tgcggactct tatc 24

<210> 6
<211> 23
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<220>
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<400> 6
gtgctagttt ttgacgaacc cag 23

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<400> 7

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Val Ala

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<211> 21
<212> DNA
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<220>
<223> Primer for Caenorhabditis elegens

<400> 8
cacaatctgt tccaatcggg c 21

<210> 9
<211> 21
<212> DNA
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<220>
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<400> 9

cgtggtcctt tccgctgtca c 21

<210> 10
<211> 21
<212> DNA
<213> Artificial

<220>
<223> Primer for Caenorhabditis elegans

<400> 10
gttctttctg ttgcctgctg g 21

<210> 11
<211> 25
<212> DNA
<213> Artificial

<220>
<223> Primer for Caenorhabditis elegans

<400> 11
ctcctgataa cttttagagg tttgg 25

<210> 12
<211> 25
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<400> 12
cctaatgagc acactaccag ttttg 25

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<211> 30
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<220>
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<400> 13
acgcgtcgac tctccaaccc atcaaacacc 30

<210> 14
<211> 30
<212> DNA
<213> Artificial

<220>
<223> Primer for Caenorhabditis elegans

<400> 14
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<212> DNA
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<400> 15
tggaaagcac aatcgaggtg g 21

<210> 16
<211> 44
<212> DNA
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<220>
<223> Primer for Caenorhabditis elegans

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<210> 17
<211> 21
<212> DNA
<213> Artificial

<220>
<223> Primers for GFP from Aequoria Victoria

<400> 17
ccaaaggacc caaaggtatg t 21

<210> 18
<211> 23
<212> DNA
<213> Artificial

<220>
<223> Primers for GFP from Aequoria Victoria

<400> 18
tacagacaag ctgtgaccgt ctc 23

<210> 19
<211> 42
<212> DNA
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<220>
<223> Primer for Caenorhabditis elegans

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<210> 20
<211> 21
<212> DNA

<213> Artificial

<220>
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<400> 20
gtggaagtca atgggcagat t 21

<210> 21
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<223> Primers for GFP from Aequoria Victoria

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<211> 43
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<220>
<223> Primer for Caenorhabditis elegans and Myc tag

<400> 22
cattttcagg aggacccttg gtgatgtgaa ttcttatggt ggc 43

<210> 23
<211> 65
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<213> Artificial

<220>
<223> Primer for Caenorhabditis elegans and Myc tag

<400> 23
ggcgagctct taaaggtcct cctcagaaat gagtttttgt tcagggatga cacataatgc 60

ttcag 65

<210> 24
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<212> PRT
<213> Artificial

<220>
<223> Myc tag

<400> 24

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<210> 25
<211> 9

<212> PRT
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<220>
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<400> 25

Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
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<210> 26
<211> 213
<212> PRT
<213> Artificial

<220>
<223> Caenorhabditis elegans

<400> 26

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Val Ala Gln Thr Phe Gly Cys Ser Asn Thr Lys Ile Asn Asp Gln Ala
20 25 30

Arg Lys Met Phe Tyr Asp Ala His Asn Asp Ala Arg Arg Ser Met Ala
35 40 45

Lys Gly Leu Glu Pro Asn Lys Cys Gly Leu Leu Ser Gly Gly Lys Asn
50 55 60

Val Tyr Glu Leu Asn Trp Asp Cys Glu Met Glu Ala Lys Ala Gln Glu
65 70 75 80

Trp Ala Asp Gly Cys Pro Ser Ser Phe Gln Thr Phe Asp Pro Thr Trp
85 90 95

Gly Gln Asn Tyr Ala Thr Tyr Met Gly Ser Ile Ala Asp Pro Leu Pro
100 105 110

Tyr Ala Ser Met Ala Val Asn Gly Trp Trp Ser Glu Ile Arg Thr Val
115 120 125

Gly Leu Thr Asp Pro Asp Asn Lys Tyr Thr Asn Ser Ala Met Phe Arg
130 135 140

Phe Ala Asn Met Ala Asn Gly Lys Ala Ser Ala Phe Gly Cys Ala Tyr
145 150 155 160

Ala Leu Cys Ala Gly Lys Leu Ser Ile Asn Cys Ile Tyr Asn Lys Ile

165 170 175

Gly Tyr Met Thr Asn Ala Ile Ile Tyr Glu Lys Gly Asp Ala Cys Thr
180 185 190

Ser Asp Ala Glu Cys Thr Thr Tyr Ser Asp Ser Gln Cys Lys Asn Gly
195 200 205

Leu Cys Tyr Lys Ala
210

<210> 27
<211> 212
<212> PRT
<213> Artificial

<220>
<223> Caenorhabditis elegans

<400> 27

Pro Gln Ala Pro Val Val Glu Thr Phe Thr Met Cys Pro Ser Val Thr
1 5 10 15

Asp Gln Ser Asp Gln Ala Arg Gln Asn Phe Leu Asp Thr His Asn Lys
20 25 30

Leu Arg Thr Ser Leu Ala Lys Gly Leu Glu Ala Asp Gly Ile Ala Ala
35 40 45

Gly Ala Phe Ala Pro Met Ala Lys Gln Met Pro Lys Leu Val Lys Tyr
50 55 60

Ser Cys Thr Val Glu Ala Asn Ala Arg Thr Trp Ala Lys Gly Cys Leu
65 70 75 80

Tyr Gln His Ser Thr Ser Ala Gln Arg Pro Gly Leu Gly Glu Asn Leu
85 90 95

Tyr Met Ile Ser Ile Asn Asn Met Pro Lys Ile Gln Thr Ala Glu Asp
100 105 110

Ser Ser Lys Ala Trp Trp Ser Glu Leu Lys Asp Phe Gly Val Gly Ser
115 120 125

Asp Asn Ile Leu Thr Gln Ala Val Phe Asp Arg Gly Val Gly His Tyr
130 135 140

Thr Gln Met Ala Trp Glu Gly Thr Thr Glu Ile Gly Cys Phe Val Glu
145 150 155 160

Asn Cys Pro Thr Phe Thr Tyr Ser Val Cys Gln Tyr Gly Pro Ala Gly
165 170 175

Asn Tyr Met Asn Gln Leu Ile Tyr Thr Lys Gly Ser Pro Cys Thr Ala
180 185 190

Asp Ala Asp Cys Pro Gly Thr Gln Thr Cys Ser Val Ala Glu Ala Leu
195 200 205

Cys Val Ile Pro
210

<210> 28
<211> 268
<212> PRT
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<220>
<223> Caenorhabditis elegans

<400> 28

Met Asn Val Val Leu Ser Ala Val Thr Leu Phe Leu Ile Phe Arg Tyr
1 5 10 15

Ala Gln Thr Val Asn Ile Glu Gly Ser Gly Gly Asn Asp Glu Leu Leu
20 25 30

Glu Gln Asn Val Trp Asn Asp Val Asp Asp Lys Val Val Glu Ala Leu
35 40 45

Gly Gly Leu Asp Asp Glu Leu Leu Thr Glu His Val Cys Asn Lys Ser
50 55 60

Thr Ile Thr Gln Leu Gln Gln Glu Ile Ile Leu Thr Thr His Asn Glu
65 70 75 80

Leu Arg Arg Ser Leu Ala Phe Gly Lys Gln Arg Asn Lys Arg Gly Leu
85 90 95

Met Asn Gly Ala Arg Asn Met Tyr Lys Leu Asp Trp Asp Cys Glu Leu
100 105 110

Ala Ser Leu Ala Ala Asn Trp Ser Thr Ser Cys Pro Gln His Phe Met
115 120 125

Pro Gln Ser Val Leu Gly Ser Asn Ala Gln Leu Phe Lys Arg Phe Tyr
130 135 140

Phe Tyr Phe Asp Gly His Asp Ser Thr Val His Met Arg Asn Ala Met
145 150 155 160

Lys Tyr Trp Trp Gln Gln Gly Glu Glu Lys Gly Asn Glu Asp Gln Lys
165 170 175

Asn Arg Phe Tyr Ala Arg Arg Asn Tyr Phe Gly Trp Ala Asn Met Ala
180 185 190

Lys Gly Lys Thr Tyr Arg Val Gly Cys Ser Tyr Ile Met Cys Gly Asp
195 200 205

Gly Glu Ser Ala Leu Phe Thr Cys Leu Tyr Asn Glu Lys Ala Gln Cys
210 215 220

Glu Lys Glu Met Ile Tyr Glu Asn Gly Lys Pro Cys Cys Glu Asp Lys
225 230 235 240

Asp Cys Phe Thr Tyr Pro Gly Ser Lys Cys Leu Val Pro Glu Gly Leu
245 250 255

Cys Gln Ala Pro Ser Met Val Lys Asp Asp Gly Gly
260 265

<210> 29
<211> 205
<212> PRT
<213> Artificial

<220>
<223> Caenorhabditis elegans

<400> 29

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1 5 10 15

Thr Leu Glu Gln His Asn Phe Tyr Arg Ser Arg Leu Ala Lys Gly Phe
20 25 30

Glu Trp Asn Gly Glu Thr Asn Thr Ser Gln Pro Lys Ala Ser Gln Met
35 40 45

Ile Lys Met Glu Tyr Asp Cys Met Leu Glu Arg Phe Ala Gln Asn Trp
50 55 60

Ala Asn Asn Cys Val Phe Ala His Ser Ala His Tyr Glu Arg Pro Asn
65 70 75 80

Gln Gly Gln Asn Leu Tyr Met Ser Ser Phe Ser Asn Pro Asp Pro Arg
85 90 95

Ser Leu Ile His Thr Ala Val Glu Lys Trp Trp Gln Glu Leu Glu Glu
100 105 110

Phe Gly Thr Pro Ile Asp Asn Val Leu Thr Pro Glu Leu Trp Asp Leu
115 120 125

Lys Gly Lys Ala Ile Gly His Tyr Thr Gln Met Ala Trp Asp Arg Thr
130 135 140

Tyr Arg Leu Gly Cys Gly Ile Ala Asn Cys Pro Lys Met Ser Tyr Val
145 150 155 160

Val Cys His Tyr Gly Pro Ala Gly Asn Arg Lys Asn Asn Lys Ile Tyr
165 170 175

Glu Ile Gly Asp Pro Cys Glu Val Asp Asp Asp Cys Pro Ile Gly Thr
180 185 190

Asp Cys Glu Lys Thr Thr Ser Leu Cys Val Ile Ser Lys
195 200 205

<210> 30
<211> 218
<212> PRT
<213> Artificial

<220>
<223> Ancylostoma caninum

<400> 30

Met Phe Ser Pro Val Ile Val Ser Val Ile Phe Thr Ile Ala Phe Cys
1 5 10 15

Asp Ala Ser Pro Ala Arg Asp Gly Phe Gly Cys Ser Asn Ser Gly Ile
20 25 30

Thr Asp Lys Asp Arg Gln Ala Phe Leu Asp Phe His Asn Asn Ala Arg
35 40 45

Arg Arg Val Ala Lys Gly Val Glu Asp Ser Asn Ser Gly Lys Leu Asn
50 55 60

Pro Ala Lys Asn Met Tyr Lys Leu Ser Trp Asp Cys Ala Met Glu Gln
65 70 75 80

Gln Leu Gln Asp Ala Ile Gln Ser Cys Pro Ser Ala Phe Ala Gly Ile

85 90 95

Gln Gly Val Ala Gln Asn Val Met Ser Trp Ser Ser Ser Gly Gly Phe
100 105 110

Pro Asp Pro Ser Val Lys Ile Glu Gln Thr Leu Ser Gly Trp Trp Ser
115 120 125

Gly Ala Lys Lys Asn Gly Val Gly Pro Asp Asn Lys Tyr Asn Gly Gly
130 135 140

Gly Leu Phe Ala Phe Ser Asn Met Val Tyr Ser Glu Thr Thr Lys Leu
145 150 155 160

Gly Cys Ala Tyr Lys Val Cys Gly Thr Lys Leu Ala Val Ser Cys Ile
165 170 175

Tyr Asn Gly Val Gly Tyr Ile Thr Asn Gln Pro Met Trp Glu Thr Gly
180 185 190

Gln Ala Cys Lys Thr Gly Ala Asp Cys Ser Thr Tyr Lys Asn Ser Gly
195 200 205

Cys Glu Asp Gly Leu Cys Thr Lys Gly Pro
210 215

<210> 31
<211> 206
<212> PRT
<213> Artificial

<220>
<223> Ancylostoma caninum

<400> 31

Asp Val Pro Glu Thr Asn Gln Gln Cys Pro Ser Asn Thr Gly Met Thr
1 5 10 15

Asp Ser Val Arg Asp Thr Phe Leu Ser Val His Asn Glu Phe Arg Ser
20 25 30

Ser Val Ala Arg Gly Leu Glu Pro Asp Ala Leu Gly Gly Asn Ala Pro
35 40 45

Lys Ala Ala Lys Met Leu Lys Met Val Tyr Asp Cys Glu Val Glu Ala
50 55 60

Ser Ala Ile Arg His Gly Asn Lys Cys Val Tyr Gln His Ser His Gly
65 70 75 80

Glu Asp Arg Pro Gly Leu Gly Glu Asn Ile Tyr Lys Thr Ser Val Leu
85 90 95

Lys Phe Asp Lys Asn Lys Ala Ala Lys Gln Ala Ser Gln Leu Trp Trp
100 105 110

Asn Glu Leu Lys Glu Phe Gly Val Gly Pro Ser Asn Val Leu Thr Thr
115 120 125

Ala Leu Trp Asn Arg Pro Gly Met Gln Ile Gly His Tyr Thr Gln Met
130 135 140

Ala Trp Asp Thr Thr Tyr Lys Leu Gly Cys Ala Val Val Phe Cys Asn
145 150 155 160

Asp Phe Thr Phe Gly Val Cys Gln Tyr Gly Pro Gly Gly Asn Tyr Met
165 170 175

Gly His Val Ile Tyr Thr Met Gly Gln Pro Cys Ser Gln Cys Ser Pro
180 185 190

Gly Ala Thr Cys Ser Val Thr Glu Gly Leu Cys Ser Ala Pro
195 200 205

<210> 32
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<212> PRT
<213> Artificial

<220>
<223> Caenorhabditis elegans

<400> 32

Met Asn Tyr Leu Leu Leu Val Val Ala Leu Ala Val Gly Cys Ser Ala
1 5 10 15

Asp Phe Gly Ser Ser Gly Gln Asn Gly Ile Ile Asn Ala His Asn Thr
20 25 30

Leu Arg Ser Lys Ile Ala Lys Gly Thr Tyr Val Ala Lys Gly Thr Gln
35 40 45

Lys Ser Pro Gly Thr Asn Leu Leu Lys Met Lys Trp Asp Ser Ala Val
50 55 60

Ala Ala Ser Ala Gln Asn Tyr Ala Asn Gly Cys Pro Thr Gly His Ser
65 70 75 80

Gly Asp Ala Gly Leu Gly Glu Asn Leu Tyr Trp Tyr Trp Thr Ser Gly
85 90 95

Ser Leu Gly Asp Leu Asn Gln Tyr Gly Ser Ala Ala Ser Ala Ser Trp
100 105 110

Glu Lys Glu Phe Gln Asp Tyr Gly Trp Lys Ser Asn Leu Met Thr Ile
115 120 125

Asp Leu Phe Asn Thr Gly Ile Gly His Ala Thr Gln Met Ala Trp Ala
130 135 140

Lys Ser Asn Leu Ile Gly Cys Gly Val Lys Asp Cys Gly Arg Asp Ser
145 150 155 160

Asn Gly Leu Val Lys Val Thr Val Val Cys Gln Tyr Lys Pro Gln Gly
165 170 175

Asn Phe Ile Asn Gln Tyr Ile Tyr Val Ser Gly Ala Thr Cys Ser Gly
180 185 190

Cys Pro Ser Gly Thr Ser Cys Glu Thr Ser Thr Gly Leu Cys Val
195 200 205

<210> 33
<211> 231
<212> PRT
<213> Artificial

<220>
<223> Meloidogyne incognita

<400> 33

Met Ser Asn Lys Leu Ile Ile Ser Ile Leu Ile Leu Thr Ile Ile Tyr
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Thr Val Val Asn Ser Leu Thr Val Pro Glu Gln Asn Ala Val Val Asp
20 25 30

Cys Ile Asn Lys Tyr Arg Ser Gln Leu Ala Asn Gly Lys Thr Lys Asn
35 40 45

Lys Asn Gly Gly Asn Phe Pro Ser Gly Lys Asp Ile Leu Glu Val Ser
50 55 60

Tyr Ser Lys Asp Leu Glu Lys Ser Ala Gln Arg Trp Ala Asn Lys Cys
65 70 75 80

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Ile Phe Asp His Asn Gly Thr Asp Leu Tyr Ser Gly Gly Lys Phe Tyr
                85                  90                  95

Gly Glu Asn Leu Tyr Leu Asp Gly Asp Phe Glu His Lys Asn Ile Thr
            100                 105                 110

Gln Leu Met Ile Asp Ala Cys Asn Ala Trp Trp Gly Glu Ser Thr Thr
        115                 120                 125

Asp Gly Val Pro Pro Ser Trp Ile Asn Asn Phe Leu Pro Thr Asp Asn
    130                 135                 140

Lys Glu Asn Asp Glu Lys Phe Glu Ala Val Gly His Trp Thr Gln Met
145                 150                 155                 160

Ala Trp Ala Lys Thr Tyr Gln Ile Gly Cys Ala Leu Lys Val Cys His
                165                 170                 175

Lys Pro Asp Cys Asn Gly Asn Leu Ile Asp Cys Arg Tyr Tyr Pro Gly
            180                 185                 190

Gly Asn Gly Met Gly Ser Pro Ile Tyr Gln Gln Gly Lys Pro Ala Ser
        195                 200                 205

Gly Cys Gly Lys Ala Gly Pro Ser Thr Lys Tyr Ser Gly Leu Cys Lys
    210                 215                 220

Pro Asp Pro His Gln Asn Asn
225                 230
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